

AS 1668.2—2012
(Incorporating Amendment Nos 1 and 2)

AS 1668.2—2012



The use of ventilation and airconditioning in buildings

Part 2: Mechanical ventilation in buildings



This Australian Standard® was prepared by Committee ME-062, Ventilation and Air conditioning. It was approved on behalf of the Council of Standards Australia on 12 October 2012.

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The following are represented on Committee ME-062:

- Air Conditioning and Mechanical Contractors Association
 - Australasian Fire and Emergency Service Authorities Council
 - Australian Building Codes Board
 - Australian Industry Group
 - Australian Institute of Refrigeration Air Conditioning and Heating
 - Chartered Institute of Building Services Engineers
 - Climate Control Companies Association
 - Consumer Electronic Suppliers Association
 - Department of Health and Human Services, Tasmania
 - Engineers Australia
 - Facility Management Association of Australia
 - Fire Protection Association Australia
 - Institute of Refrigeration Heating and Air Conditioning Engineers of New Zealand
 - Plastics and Chemical Industries Association
 - Plumbing Industry Commission
 - Property Council of Australia
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This Standard was issued in draft form for comment as DR AS 1668.2.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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(Incorporating Amendment Nos 1 and 2)

Australian Standard[®]

**The use of ventilation and
airconditioning in buildings**

**Part 2: Mechanical ventilation in
buildings**

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PREFACE

This Standard was prepared by Standards Australia Committee ME-062, Ventilation and Air Conditioning, to supersede AS 1668.2—2002, *The use of ventilation and airconditioning in buildings, Part 2: Ventilation design for indoor air contaminant control (excluding requirements for the health aspects of tobacco smoke exposure)*.

This Standard incorporates Amendment No. 1 (October 2013) and Amendment No. 2 (December 2016). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to provide users with minimum design parameters and guidelines for determining ventilation rates for general application in buildings.

This Standard has been prepared for reference in the *National Construction Code (NCC)*.

In accordance with the philosophy of adopting a complementary approach to building regulations, the main technical change to the Standard is the update of AS 1668.2—2002 to reflect current technology and approaches for ventilation as well as the relocation of natural ventilation content to the new Standard AS 1668.4, *The use of ventilation and airconditioning in buildings, Part 4: Natural ventilation of buildings*. Within that approach, the structure of the Standard has been revised to include a new prescribed approach to car park ventilation and the use of ‘borrowed’ ventilation for multi-use compartments. The main technical changes are summarized as follows:

- (a) A simplified methodology for multi-use enclosures using mass flow proportioning.
- (b) Minimum outdoor airflow rates have been normalized in line with the removal of all references to ‘environmental tobacco smoke’.
- (c) Requirements for natural ventilation systems have been excluded.
- (d) Outdoor airflow rate calculations have been presented using the concept of ‘effective outdoor airflow’.
- (e) Requirements for kitchen exhaust hood design have been rationalized and expanded to cover additional scenarios and reflect recent changes in hood technology and application.
- (f) Equations used for calculation of total airflow rates in car parks have been presented as ‘simple’ and ‘detailed’ procedures.
- (g) Alternative air distribution methods for car parks have been included.

In the preparation of this Standard, consideration was given to a number of international and national Standards, design guides, technical papers, manuals and other publications.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to Tables are deemed to be requirements of this Standard.

This Standard incorporates a Commentary on some clauses. The Commentary is set directly following the relevant clause and is designated by ‘C’ preceding the clause number and printed in italics in a panel. The Commentary is for information only and does not need to be followed for compliance with the Standard.

CONTENTS

	<i>Page</i>
FOREWORD.....	5
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	6
1.2 APPLICATION	6
1.3 NORMATIVE REFERENCES	8
1.4 DEFINITIONS.....	9
1.5 COMBINATION VENTILATION SYSTEMS.....	13
1.6 RESIDUAL VENTILATION	13
1.7 SYSTEM OPERATION	13
SECTION 2 MECHANICAL VENTILATION—SUPPLY SYSTEMS	
2.1 SCOPE OF SECTION	14
2.2 NOTATION.....	15
2.3 OUTDOOR AIR INTAKES.....	16
2.4 TUNDISHES AND FLOOR WASTES.....	16
2.5 FILTRATION.....	16
2.6 PROHIBITION OF RECYCLE AIR.....	17
2.7 OUTDOOR AIR MIXING AND DISTRIBUTION	18
2.8 OUTDOOR AIRFLOW RATES.....	18
2.9 OUTDOOR AIRFLOW ADJUSTMENT.....	22
SECTION 3 MECHANICAL VENTILATION—EXHAUST SYSTEMS	
3.1 SCOPE OF SECTION	27
3.2 EXHAUST VENTILATION.....	29
3.3 LOCAL EXHAUST.....	29
3.4 KITCHEN EXHAUST HOODS	31
3.5 KITCHEN EXHAUST HOOD AIRFLOW—PRESCRIPTIVE PROCEDURE	34
3.6 VENTILATED CEILING AND PROPRIETARY KITCHEN EXHAUST EQUIPMENT (HOOD TYPES 5 AND 7)	35
3.7 AIR FROM ENCLOSURES HAVING EXHAUST AIR REQUIREMENTS	35
3.8 REPLENISHMENT OF EXHAUST AIR	35
3.9 COMBINATION OF EXHAUST SYSTEMS.....	37
3.10 AIR DISCHARGES.....	38
SECTION 4 VENTILATION OF ENCLOSURES USED BY VEHICLES WITH COMBUSTION ENGINES	
4.1 SCOPE OF SECTION	42
4.2 APPLICATION OF SECTION	44
4.3 NOTATION.....	44
4.4 CAR PARKS	46
4.5 ENCLOSURES OTHER THAN CAR PARKS.....	49
4.6 QUEUING AREAS	51
4.7 AIR PRESSURE.....	52
4.8 MAKE-UP OF EXHAUST AIR	52
4.9 EXHAUST AIR DISCHARGE.....	52
4.10 COMBINATION SYSTEMS.....	52
4.11 VENTILATION CONTROL	53
4.12 MONITORING OF ATMOSPHERIC CONTAMINANTS.....	54

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